



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,687	07/15/2003	Tetsuro Ogawa	P23556	5517

7055 7590 10/13/2005

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

GROUP, KARL E

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,687

Applicant(s)

OGAWA ET AL.

Examiner

Karl E. Group

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8-26-05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10,11,20,21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10,11,20,21 stand rejected as indefinite in view of the terminology "sintered calcium phosphate glass". In the instant invention and in the industry a glass is not sintered. The glass is added to a calcium phosphate as a sintering aid, see examples in disclosure. This does not produce a sintered glass but a sintered calcium phosphate article to which the glass is added as a sintering aid.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1,4-6,8,10,11,12—23 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfeil et al (4,135,935), for reasons of record.

Claims 12-4,17 include consisting essentially of terminology however "consisting essentially of only limit the claims to exclude components that materially affect the claimed invention and therefor do not exclude additional components taught by Pfeil et al.

Applicants argument that the content of CaO taught in Pfeil et al is 26.4 mole% and therefore outside the claimed range is not persuasive in overcoming the rejection.

Art Unit: 1755

Pfeil et al also teaches the addition of $\text{Ca}_3(\text{PO}_4)_2$ in amounts of 6 Mole% yielding amounts of CaO greater than 30 mole% in the glass.

It is further argued that Pfeil et al fail to teach material with high bio-compatibility. Pfeil et al teach the material is used as an implant material. For the material to be used as an implant it must have bio-compatibility. As to the modifier of Pfeil et al, the claims do not exclude the presence of a modifier. Furthermore, although Pfeil et al fail to disclose the glass transition temperature, identical compositions may not have mutually exclusive properties. As to the wollastonite crystal applicants are claiming a glass which does not contain crystals. Glasses are amorphous. Applicants are not claiming a crystallized glass, claim 6 sets forth crystals are formed at a crystallization temperature however do not require the glass to be brought to that temperature.

5. Claims 1-3,5-11,16,19,22,23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fuji et al (4,708,652), for reasons of record.

Claims 22 set forth terminology "CaO and SiO_2 in approximately equal molar ratios" however the specification fails to define what is considered "approximately equal" and therefor is interpreted as being defined as the examples.

It is agreed that Fuji et al fails to disclose the glass transition temperature however applicants have not shown by way of tangible evidence that the claimed glass transition temperature is unique to the claimed invention. It is further argued that Fuji et al fail to teach a material with high bio-compatibility. Fuji et al teach the material is used

Art Unit: 1755

as an implant material. For the material to be used as an implant it must have bio-compatibility.

It is further argued Fuji et al discloses broad ranges of components, but does not sufficiently envisage to anticipate or render obvious the compositions in Applicants' claims. This is not persuasive because Fuji et al teach substantial overlap if not totally encompassing the claimed range. Applicants have not shown any unexpected results by selecting compositions with in the ranges taught by Fuji et al. A reference may be used for all it realistically teaches and is not limited to the disclosure of its specific examples. In re Van Meter 52 CCPA 1076, 144 USPQ 421.

6. Claims 1,2,4-9,17,19,22,23 are rejected under 35 U.S.C. 102(b) as being anticipated by Suh et al (5,634,956), for reasons of record.

It is agreed that Suh et al do not teach the presence of Na_2O however the rejected claims do not require this component. The terminology 20% or less includes 0%.

Applicants' argument that Suh et al fail to teach or suggest any features that the glass ceramic as such may have a function to promote the sintering of calcium phosphate. This is not persuasive in overcoming the rejection because the rejected claims are not drawn to a method of sintering but to a glass. The glass composition set forth in the rejected claims is not patentably distinguishable from the glass taught by Suh et al. As to the glass transition temperature, products of identical composition may not have mutually exclusive properties. In re Spada 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Art Unit: 1755

7. Claims 13,5-9,12-19,22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese document 61-205637, for reasons of record.

The instant claims do not exclude the presence of MgO in the glass composition.

Applicants have not shown by way of tangible evidence that the claimed glass transition temperature is unique to the claimed glass composition. Furthermore, the glass of the Japanese document possesses bio-compatibility since it is used as bone implants.

Again the instantly rejected claims are not drawn to a process of sintering but to a glass composition that does not patentably distinguish the glass taught by the Japanese documents.

8. Claims 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kume et al (4,443,550).

The instant claims are drawn to a glass.

Kume et al, see the glass compositions 11-19 in table 1 which fall squarely within the claimed ranges. Claim 13 fails to set forth an amount of CaF and therefor is considered to include 0%. The claims are considered anticipated

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

Art Unit: 1755

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-3,5-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/962557. Although the conflicting claims are not identical, they are not patentably distinct from each other because of reasons set forth.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

A terminal disclaimer is necessary to overcome the double patenting rejection to prevent possible harassment by multiple assignees, see above.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


Art Unit: 1755

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl E. Group whose telephone number is 571-272-1368. The examiner can normally be reached on M-F (6:30-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karl E Group
Primary Examiner
Art Unit 1755

Keg
9-30-05